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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/676,730	10/01/2003	Michael A. Bridges	VANS121762	2936

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CHRISTENSEN, O'CONNOR, JOHNSON, KINDNESS, PLLC  
1420 FIFTH AVENUE  
SUITE 2800  
SEATTLE, WA 98101-2347

EXAMINER
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KIM, YOON YOUNG

ART UNIT	PAPER NUMBER
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1723

DATE MAILED: 04/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/676,730

Applicant(s)

BRIDGES ET AL.

Examiner

Yoon-Young Kim

Art Unit

1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 20-22 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-15 is/are allowed.
- 6) ☒ Claim(s) 16-19, 23 and 24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

This Office Action is in response to the Amendment filed on February 3, 2006.

### ***Election/Restrictions***

1. Claims 20-22 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Election was made **without** traverse in the reply filed on February 3, 2006.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 16 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Hatch et al., U.S. Patent No. 5,897,770.

Regarding Claim 16, Hatch discloses a water purification cartridge, comprising: an inlet member (#6) configured to provide treated water in a first axial direction; a ring member (#12) adjacent to the inlet member; a purifier vessel (#18) adjacent to the ring member, wherein the purifier vessel is configured to treat the untreated water to provide treated water; a bulkhead (#14) adjacent to the purifier vessel, wherein the bulkhead is configured to separate untreated water from treated water; a dwell chamber (between #20 and #32) exterior to the purifier vessel

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wherein the dwell chamber is configured to provide treated water flow in a second axial direction opposite to the first axial direction.

Regarding Claim 19, Hatch discloses that the ring member distributed untreated water in a radial direction (#12).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hatch in view of Worley.

Regarding Claims 17-18 and 21, Hatch discloses that the purifier vessel contains halogenated ion exchange resin (Col. 8, Lines 20-23) but does not disclose polystyrene hydantoin or hydantoinylated siloxane. Worley teaches halogenated polystyrene hydantoin where the halogen is chlorine or bromine (Col. 3, Lines 32-41). It would have been obvious to

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one of ordinary skill in the art to modify Hatch with the element of Worley because it is a biocide used in water filters (Col. 2, Lines 15-22).

Regarding Claim 23, Hatch discloses a water purification cartridge, comprising: a purifier vessel (#18) and a dwell chamber (between #20 and #32) enclosed within an outer skin (#4). However, Hatch does not disclose that the purifier vessel contains a polymer having pendant hydantoin groups. Worley teaches halogenated polystyrene hydantoin (Col. 3, Lines 32-41). It would have been obvious to one of ordinary skill in the art to modify Hatch with the element of Worley because it is a biocide used in water filters (Col. 2, Lines 15-22).

Regarding Claim 24, Worley discloses that the halogen is chlorine or bromine (Col. 3, Lines 32-41). It would have been obvious to one of ordinary skill in the art to modify Hatch with the element of Worley because it is a biocide used in water filters (Col. 2, Lines 15-22).

#### ***Allowable Subject Matter***

6. Claims 1-15 are allowed.

The following is an examiner's statement of reasons for allowance:

The prior art of record neither teaches nor suggests the claimed apparatus comprising a dwell chamber coupled to the bulkhead, wherein the dwell chamber provides residence time for treatment of the water; and an outer skin coupled to the bulkhead and enclosing the dwell chamber. Hatch et al., U.S. Patent No. 5,897,770, teaches a chamber coupled to the bulkhead but the chamber is upstream of the purifier vessel and is unable to provide residence time for the water to react with substances from the purifier vessel. Mead, U.S. Patent No. 5,308, 482 teaches a dwell chamber coupled to the bulkhead, wherein the dwell chamber provides residence time for treatment of the water but does not teach an outer skin coupled to the bulkhead and enclosing the dwell chamber.

***Response to Arguments***

7. Applicant's arguments with respect to Claims 16 and 19 have been considered but are moot in view of the new ground(s) of rejection.

Although the filter media of Hatch and Worley functions in different ways, they are both used for the purpose of killing microorganisms and can be used in the apparatus of Hatch.


***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yoon-Young Kim whose telephone number is (571) 272-2240. The examiner can normally be reached on 8:30-4:30, Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker can be reached on (571) 272-1151. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

YK  
04/13/06

  
STEVEN P. GRIFFIN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700